

The Battle of the Bugs

The embassy wars offer lessons in mismanagement—and more than enough blame to go around

The embassy wars were escalating and Ronald Reagan was in a feisty frame of mind. Three weeks into the broadening scandal of alleged spying by members of the U.S. Marine guard detachment in the Soviet Union, Washington was talking tough about the wholesale bugging of the new U.S. chancery building in Moscow. The building, according to some security experts, is so seriously compromised by hidden Soviet listening devices that it may have to be demolished. Reagan said the Soviet bugging campaign had gone "beyond the bounds of reason." He also said that Secretary of State George Shultz had been instructed to "make certain the Soviets understand that if we're to improve relations, such espionage tactics are totally unacceptable."

There was an exchange of snarly rhetoric with Moscow and a tindery mood in Washington. Shultz, preparing for crucial

arms-control talks with Soviet Foreign Minister Eduard Shevardnadze this week (page 24), said the United States was "damned upset" by the sexual entrapment of its embassy guards. The Senate passed a nonbinding resolution urging that the Shultz-Shevardnadze meeting be moved outside the Soviet Union, and State Department officials announced that the secretary would rely on a special communications van to avoid the presumed infestation of bugs inside the embassy. Soviet officials responded harshly and produced what they said was evidence of recent U.S. attempts to snoop on Soviet diplomatic posts in the United States. Whether that evidence was genuine or not, U.S. sources generally confirmed that attempts have been made to bug the new Soviet Embassy in Washington and other Soviet diplomatic outposts. "The name of the game is to screw the other guy as much as you can until he tells you to stop," one source said. This time, he

added, "they did a better job than we did."

The ripening mixture of patriotic indignation and paranoia had all the makings of a major national-security scare. Reagan announced that the United States would not occupy the new chancery until the building was completely secure—and the Soviet Union, he said, would not be allowed to move into its new chancery in Washington until the United States was satisfied with its facilities in Moscow. The Defense Department announced the detainment on suspicion of espionage of Sgt. John Weirick, 26, a former Marine guard at the U.S. Consulate in Leningrad; three days later U.S. officials said all six Marines now stationed at the Leningrad consulate were being shipped home in connection with an ongoing security investigation. Congressional probers denounced the Moscow embassy staff for lax security management, and there was a spate of angry talk about the federal death penalty for espionage. "Execute them. They are not fit to live," Senate Majority Leader Robert Byrd thundered. "Give them all of their constitutional rights, and if they ... are found guilty, execute them."

'We don't use hookers': Perhaps predictably, there was a search for scapegoats as well. The KGB was a prime rhetorical target. "There's something in the Judeo-Christian ethic that even in the spy world, we don't use hookers," a White House official said. "But the real point is that the magnitude of what they've done goes beyond anything ever witnessed before—in the moral and technical sense, they've been more dastardly than anything we'd ever do to them." Others inveighed against the striped-pants set at Foggy Bottom, and the Reagan administration has now commis-

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Telephone lines can be tapped along the phone cable in the building or the phones themselves can be bugged.

Typewriters emit their own radio waves that can be received outside the embassy.

Computer messages can be read by electronic eavesdropping devices or by picking up the electromagnetic fields generated by the computer.

Laser beams may be aimed from trucks at the embassy windows to detect conversation in the room.

How to Bug an Embassy

Intelligence experts aren't sure how the Soviets bugged the U.S. Embassy in Moscow, but here are a few possibilities:

Miniature cameras that may be placed in copy machines can record pictures of documents as they are reproduced.

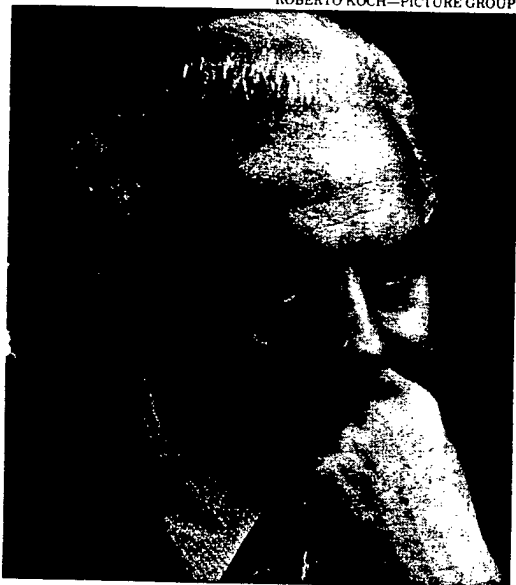
Tiny electronic circuits may be mixed into concrete, confusing attempts to find real bugs.

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sioned four separate investigations of security lapses in Moscow. Senate Minority Leader Bob Dole charged publicly that Arthur Hartman, a career diplomat who only recently retired from a five-year tour as ambassador to the U.S.S.R., had resisted Washington's demands for improve-

The Kremlin talks back: Shevardnadze

ROBERTO KOCH—PICTURE GROUP



ments in security at the embassy.* Hartman "deserves to have his ass kicked all over town," a White House official said—and ruminating further on the who-lost-Moscow theme, he also suggested that if "somebody's got to bear the burden for this mess . . . George [Shultz] has a bull's-eye drawn on his chest."

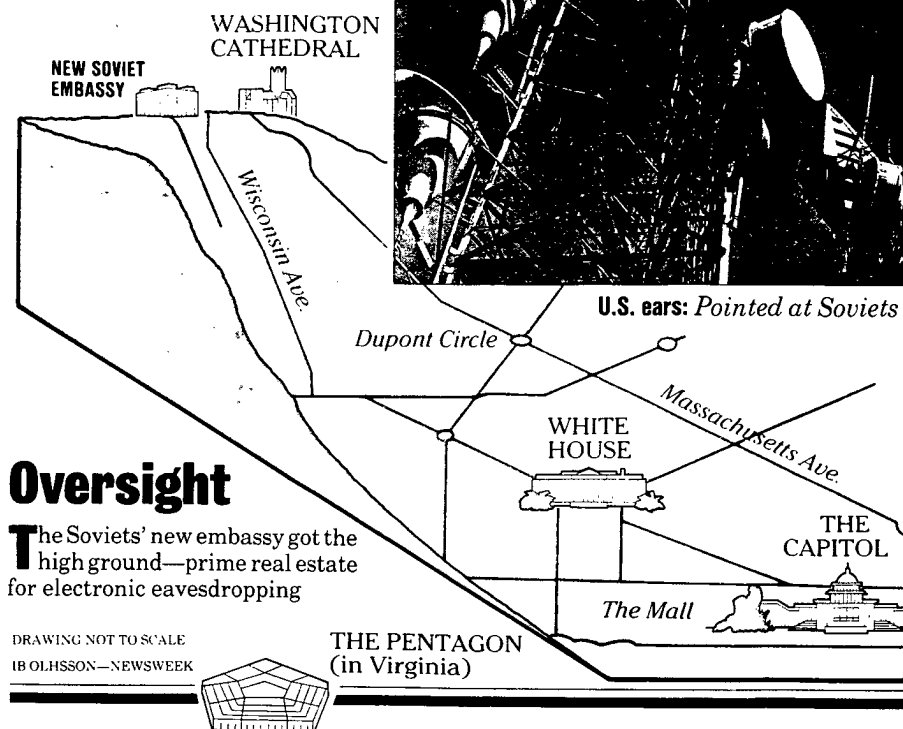
In fact, the U.S. Embassy in Moscow has had security problems for years—and if, as critics now maintain, the 15-year project to build a new embassy compound is an object lesson in mismanagement, the blame can be shared by four successive presidents and their secretaries of state. Despite intermittent U.S. protests, extensive Soviet surveillance has long been an omnipresent fact of life for American diplomats in the Soviet Union: the State Department's counterstrategy generally has been to accept that surveillance as inevitable and reserve its counterespionage defenses for the most sensitive areas of the embassy's operations. The Marines' alleged involvement in Soviet espionage, however, has raised the ante

*The crux of the issue was a proposal to fire the embassy's Soviet employees. Hartman argued that importing American workers to replace the Soviet citizens might increase the embassy's security problems, since the new workers would be easy prey for the KGB. He said he urged Shultz to reduce, but not eliminate, the Soviet staff. "I'm confident the recommendations I made were valid," he said last week. "The one thing we didn't count on was Marines committing treason."

in the Moscow spy wars, since it presumably allowed the KGB to penetrate the inner sanctums of the old chancery building. The bugging of the new chancery building poses much the same threat—continued Soviet eavesdropping on the embassy's CIA team and its code room. "Our assumption was that we could rectify whatever the Soviets had done once we took control of the building," a senior State Department official said. "That may have been too optimistic."

Tactical disadvantage: The history of the project is replete with misplaced optimism. The U.S.-Soviet treaty that allowed both sides to build new embassies was consummated by Richard Nixon at the height of détente in 1972. Fifteen years later the Soviets have a spanking new compound on the site of a former Veterans Administration hospital in northwest Washington—a site that happens to be ideal for intercepting microwave communications across the city, as many security experts have warned. The United States, on the other hand, chose to locate its new embassy compound on the bottomlands near the Moscow River. The new chancery building is surrounded on four sides by taller Soviet buildings, and it has been plagued by persistent construction problems. Even at this

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point it is far from finished—and given the extent of the Soviet bugging, some critics suggest that the best option would be to tear it down and start over—assuming, of course, the Kremlin will agree. "It's hard to understand how we could have put ourselves at a tactical disadvantage like this," a White House staffer complained last week.

Knowledgeable officials have several explanations for what went wrong. One theory, widely shared by conservatives both in and out of government, is that the State Department has always been lackadaisical about espionage and embassy security. Security experts, on the other hand, say the lack of careful oversight of the new embassy's construction is at least partly due to perennial congressional pressure to hold down costs. But all sides seem to agree that the 1972 U.S.-Soviet treaty contained a fatal flaw—a requirement that both governments use local contractors to build their new facilities. "The White House under Henry Kissinger forced us to do that," one U.S. official says bitterly—for that simple stipulation, most observers agree, was the opening wedge for the KGB. (In a television interview last week, Kissinger said he

could not recall the details of the 1972 agreement.)

Construction began in 1979. The Soviet contractor insisted on prefabricating most of the chancery building's concrete structural components away from the building site, which is common practice in the Soviet

High-Tech Conversation Stoppers

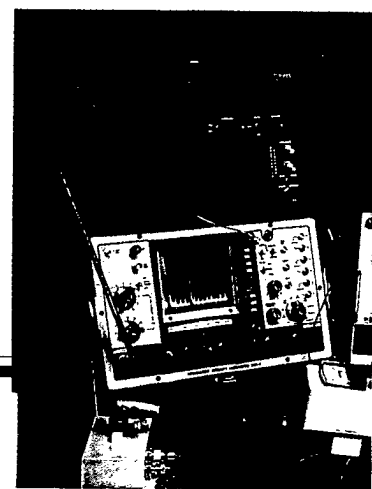
When two visiting U.S. congressmen used kiddie Magic Slates to communicate in the Moscow embassy last week, they were acknowledging one of the open secrets of the surveillance game: bugs have stayed a step ahead of bug detectors. Gobbling up the wares of the microelectronics revolution, the spy's black bag now contains tiny cameras that photograph documents fed into copying machines, lasers that bounce light beams off windows to "read" conversations from the vibrations they cause in the glass and nickel-size bugs that transform the secret electronic emanations of computers into decodable bits and bytes. At the same time, traditional techniques are still effective: the

congressmen, who checked on embassy security during their Moscow visit, were equally concerned about high-tech versions of old-fashioned microphones that Soviet agents might have planted in the compound.

The newest listening devices, some as small as fingernails, collect and send signals in ways that confound the debugging brigade. Those that transmit by wires, now thin enough to be woven into carpets and drapes, are exceptionally difficult to ferret out: one would have to X-ray every inch of wall and fabric. Bugs that send data electronically theoretically can be detected by receivers that scan a wide band of frequencies for emitted signals. One popular

sweeper, the "nonlinear junction detector," beams out microwaves and detects bugs by the signal they echo back. However, listening devices that transmit not by radio or microwave but by fiber optics, which are hair-thin strands of glass, are "virtually undetect-

Bug hunters: Devices like these seek



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Union. Although U.S. experts were present at all times, sources say security supervision was poorly coordinated, and U.S. counter-spooks did not inspect the plant where the concrete beams and panels were being poured. In 1983, after the U.S. team belatedly began to X-ray the concrete structure for flaws and bugs, the entire Soviet labor force walked off the job to protest what they

said was a health hazard to workers. The dispute was resolved and construction continued: by 1985 the chancery's structural shell was complete. At that point Washington sent in another debugging team, and a huge array of microphones was detected in the structural concrete. The bug network covered the most sensitive area of the eight-story chancery building, a windowless floor that was obviously intended for secret operations. Though the bugging technology was not new, U.S. experts were stunned by the size and subtlety of its installation; clearly, the new chancery had been compromised on a massive scale.

Comradely control: Soviet officials made none of these mistakes in Washington. Although it is true that the site of their new embassy came about almost by accident—the Soviets initially wanted to build in suburban Chevy Chase, and it was the U.S. government which found the location that was finally used—embassy officials took

U.S. bugging. They insisted on the use of solid, rather than hollow, concrete blocks and refused to accept concrete slabs that had been cast off-site. According to the project architect, they paid an extra \$180,000 to have windows and window frames taken apart and inspected, and they paid an extra \$50,000 to have structural steel delivered on a schedule that allowed them to X-ray each piece for bugs the night before it was erected.

They found some. Knowledgeable sources say U.S. intelligence agencies tried to seed the apartment complex in the new Soviet compound with listening devices in 1979—and in 1980 Soviet officials filed a formal protest with the State Department after some of the bugs were found. Last week, with the embassy wars heating up, Soviet officials called two different press conferences—one in Moscow and the other in Washington—to display what they said were bugging devices removed from their diplomatic posts in the United States. In Washington, Soviet officials led reporters on a walking tour of the new embassy compound to point out where U.S. bugging devices had been found. The embassy security officer, Vyacheslav Borovikov, obligingly scrambled up on scaffolding to pose for photographers with a mysterious black tube



Message to Moscow: Congressional probers, Magic Slate

that was said to be the battery for a listening device. Another embassy official beamed. "This is *glasnost* in action," he said—a joking reference to the Politburo's campaign for greater candor in Soviet society.

Dogs, ponies and skeletons: Glasnost or not, it was good public relations—a propaganda dog-and-pony show that emphasized the point that the United States, like the Soviet Union, has a few skeletons in the closet. The United States, by comparison, seemed to be avoiding any detailed presentation of the extent of Soviet bugging, probably because U.S. spooks don't want the Soviets to know just how effective their counterbugging techniques really are. Nevertheless, the Reagan administra-

tion seemed to be losing the propaganda contest.

The broader issue was whether, as Soviet spokesmen repeatedly charged, the Reagan administration was raising the espionage issue in order to cloud the prospects for a new agreement on the control of nuclear weapons. White House chief of staff Howard Baker denied the charge, and Reagan, in an otherwise tough speech delivered in Los Angeles, nevertheless voiced his hope for "a breakthrough" on reducing both sides' arsenals of intermediate-range missiles. The message seemed to be that Washington was determined to probe for an arms-control agreement even as it scolded the Soviets for not playing by the rules of the espionage game.

That the Shultz-Shevardnadze talks would proceed amid the renewed embassy wars only heightened the surreal ambience of the whole affair. Somehow the two superpowers were trying to conduct nuclear diplomacy while their governments played a raucous game of so's-your-old-man. But the tortuous business of arms negotiations seemed destined to go on—even if it had to be conducted on the U.S. Embassy's now infamous Magic Slates.

TOM MORGANTHAU with ROBERT B. CULLEN, RICHARD SANDZA and THOMAS M. DEFRANK in Washington and STEVEN STRASSER and JOYCE BARNATHAN in Moscow

able," says Hal Gershanoff, editor and publisher of the *Journal of Electronic Defense*. These bugs can convert overheard signals into light pulses that race through the glass fiber to an infrared transmitter embedded in an exterior wall. The transmitter relays the light signals to a listening station. Since no electronic signals are emitted, the system

eludes conventional sweeps.

Diplomats in Moscow can try whispering and running water to foil bugs that eavesdrop on conversations, but they cannot so easily counter devices that listen to the chatter of high technology. These bugs pick up the unique electromagnetic signals emitted by each stroke on an electric typewriter or each operation in a computer. Take the typewriter. A bug planted inside can tell which key was hit and send that information to a listening station, where decoders print the words typed at the bugged machine. Like state-of-the-art audio bugs, the latest electronic bugs can also transmit by fiber optics. But even those that rely on conventional transmissions may elude the Americans in Moscow: Charles Taylor, who has taught countersurveillance at

Texas A&M University, suspects the Soviets have embedded tiny diodes in the concrete walls of the new American Embassy. These electronic circuits, which resemble flecks of metal, reflect the signals of the security sweeps and so swamp them with false readings.

Bad vibrations: Americans may not even find privacy on the home turf. The Soviets' new Washington embassy, built on a high hill, is perfectly placed to beam laser light from a generator as small as a flashlight toward windows, catching the conversations going on behind them. John Pike of the Federation of American Scientists says that "the White House has put little noisemakers on its windows" to foil the eavesdropping, which can also be hindered by heavy drapes.

What can diplomats do to keep their communications se-

cure? They can trade in their Selectrics for manual typewriters, which don't emit bug-gable signals. They can banish computer-controlled telephones, which can be programmed remotely to pick up all sounds in the room just like a live microphone. An entire embassy—or key rooms—could be shielded with copper to keep electromagnetic signals from reaching listening posts. But in this day and age, it's virtually impossible to function without computers, and it's immensely difficult and expensive to ferret out sophisticated electronic ears planted in walls. Unless the debuggers make technological breakthroughs of their own, diplomats may have to get used to Magic Slates.

SHARON BEGLEY with SUSAN E. KATZ in Washington and KAREN SPRINGEN in New York

out electronic eavesdroppers
MELANIE EVE BAROCAS—PICTURE GROUP

